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(71) Applicant (for all designated States except US): **IATIA IMAGING PTY LTD** [AU/AU]; Suite 2, 935 Station Street, Box Hill North, Victoria 3129 (AU).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **ALLMAN, Brendan, Edward** [AU/AU]; 25 Jarvie Street, East Brunswick, Victoria 3057 (AU). **NUGENT, Keith** [AU/AU]; 28 Rowe Street, North Fitzroy, Victoria 3068 (AU). **PORTER, Colin** [AU/AU]; 9A Moselle Street, Box Hill North, Victoria 3129 (AU).

(74) Agent: **GRIFFITH HACK**; 509 St Kilda Road, MELBOURNE, Victoria 3004 (AU).

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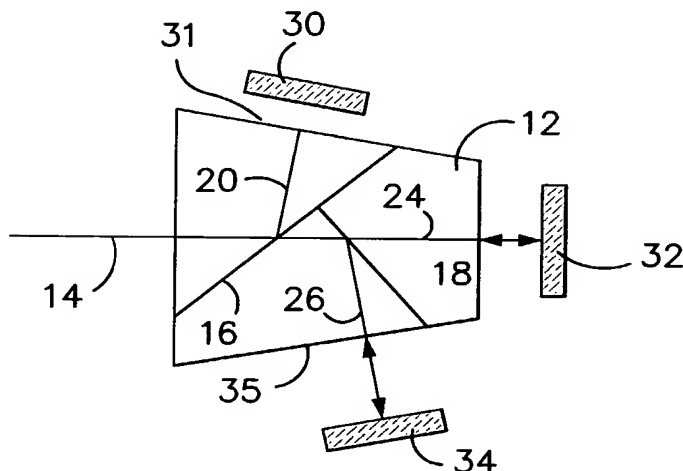
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(54) Title: AN OPTICAL SYSTEM FOR PRODUCING DIFFERENTLY FOCUSED IMAGES



(57) **Abstract:** A method and system for producing two differently focused /defocused images is disclosed in which one or more beam splitting means (16, 18) are used to split a beam (14) into a plurality of resultant beams (20, 26, 24) and a plurality of separate sensors (30, 34, 32) are used to detect the beams (20, 26, 24). The path length of the resultant beams (20, 26, 24) to the respective sensors (30, 34, 32) are different for each resultant beam, which can be achieved by placing the sensors (30, 34, 32) at different distances from the respective exit points of the resultant beams (20, 26, 24) from the beam splitting means (16, 18) or by providing optical elements (such as, for instance, movable transparent wedge-shaped members) between the beam splitting means (16, 18) and the sensors 30, 34, 32. A method and system for determining movement of an object by capturing sequential images of the object are also disclosed.

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